

BIENNIAL OPERATING PLAN PROJECT DETAIL
78th Regular Session, Conference Committee
Automated Budget and Evaluation System of Texas (ABEST)

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Agency code: 781 Agency name: **Higher Education Coordinating Board**

CATEGORY CODE/CATEGORY NAME

Project Number/Name

Type of Project

DESCRIPTION

5005 ACQUISITN INFO RES TECH

2 *PC Hardware*

350 Hardware

Project Description:

This capital budget project allows the agency to systematically replace obsolete and/or non-functional PC hardware.

New business initiatives, processes and procedures, and advancing telecommunications capabilities requires periodic replacement of existing agency PC hardware with more functional, faster, and larger capacity models. The agency utilizes an Information Technology Replacement Plan to systematically replace PC hardware and associated peripherals based upon an agency determined equipment life cycle. Using this plan, PC hardware is scheduled for replacement based upon the following equipment life cycles:

- PC workstation – 3 years
- Notebook/Laptop – 2 years
- Personal Digital Assistant – 2 years
- Printer – 5 years

Project Status:

This is an ongoing agency information technology project. The agency's Information Technology Replacement Plan resulted in acquisition and replacement of 119 workstations and 63 printers in FY 2002. When deployment has been completed all Pentium II 233/350 MHz and Pentium III 450 machines will have been replaced. The minimum Desktop platform will be 600Mhz Pentium III ranging up to the new 1533Mhz Athlon machines. The agency was able to use bulk purchasing and an existing DIR state contract to negotiate reduced pricing for the systems. Replacement systems are ordered with the Windows XP Professional operating system to comply with licensing and reduce long term ownership cost.

The agency evaluated Personal Digital Assistant (PDA) technology and is in the process of implementing a pilot program to use Compaq Ipaq PDAs to increase productivity and access to information for key staff. This program promises to provide relevant and timely agency information to key staff members in a format that is portable and easy to access.

Needs-analysis Summary:

Many of the risks associated with the operation of PC workstation hardware are mitigated by frequent replacement of obsolete items. Recent self-accessed risk analysis indicates that the highest impact risks are obsolete operating system software and hardware followed closely by unreliable and incompatible equipment.

Support requirements are also a factor in the need for this project. Continually updated equipment and applications have permitted the agency to maintain its PC workstations with minimal technical support staff.

Continual operating system and application upgrades require updated training room facilities. Training room equipment must be adequate to permit employees to update skills on equipment similar to their own workstations.

Project Justification:

The agency is well served by this project with the availability of updated and efficient desktop equipment. In addition, the agency is able to address through this project ergonomic concerns as they arise with the purchase of compliant monitors and keyboards.

Fiscal Measures:

Through the use of a standard life cycle for PC workstations and printers, the agency has a systematic plan for information technology replacements and also a tool with which to control IT replacement budgets.

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350 Hardware

Utilizing an existing DIR state contract, the agency periodically renegotiates the pricing for the standard desktop workstation platform resulting in reduced pricing and increased performance and capabilities.

Recent changes in the Microsoft operating system licensing resulted in analysis of cost of operating system ownership. As a result of the analysis, the agency decided to purchase XP licenses on all new workstations, which will reduce the long-term workstation operating system total cost of ownership.

Controls implemented in acquisition-based oversight direct these funds to areas that may not be funded in divisional operating budgets.

Performance Measures:

The primary performance objective for this project is to deliver stable, maintainable PC hardware resources that meets staff needs and performs to expectations. A secondary objective is to manage the information technology inventory responsibly. Maintainability and stability are measured by the ratio of support calls to workstations in use. The agency's inventory is inventoried on an annual basis, with highly mobile information technology items inventoried on a semi-annual basis. Obsolete equipment is promptly removed from inventory and disposed in accordance with existing state statutes.

Acquisition-of-Alternatives Analysis:

Analysis of Pentium 4 and Athlon class systems resulted in the selection of Athlon-based workstations on the basis of performance and cost.

Alternate DIR qualified workstation vendors were evaluated through a competitive bid process. The present vendor was selected based on cost, warranty period, service level and performance considerations.

Consideration was given to a seat-management alternative for providing agency workstations. A proposal from Northrup-Grunman to provide seat-managed workstations was received and evaluated. Comparison of the cost of providing workstations through the existing procurement and support plan versus the Northrup-Grunman proposal indicate that procurement costs using the agency's current plan are 33% lower than the proposed seat management solution. The evaluation compared cost based on the agency's three-year workstation life cycle.

The relatively low cost of new PC workstations preclude efforts to upgrade hardware components in existing PC workstation hardware with the exception of memory and monitors upgrades.

Due to the capital funding of this project, large-scale procurement of workstation resources through a lease arrangement would present problems should capital funding for this project be reduced or eliminated. While PC hardware that is purchased would remain in place in the absence of funding, leased resources would have to be returned at the end of the lease.

Cooperative-Project Area:

N/A

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2 *PC Hardware*
350 Hardware

WTDROC Area: See Acquisition-of-Alternatives Analysis.

Milestones or Timelines: This is an ongoing information technology project, with milestones being reached as equipment is procured and installed or upgraded.

3 *Software*
500 Software

Project Description: Software for agency workstations and servers must be consistent and current in order to provide continuity of interoffice business processes and workflow. This project allows the agency to annually renew existing licensing and procure new licensing for workstation desktop and operating system software, server operating system and application software, business application software, and application development software.

Project Status: This is an ongoing agency information technology project. Several software areas were addressed in FY02 including application development, project management, statistical analysis, web content filtering, and security software. The content filtering purchase required a corresponding telecommunication equipment purchase to implement an interoperable firewall. During FY02 Microsoft licensing options were evaluated and appropriate licensing was procured. Software Assurance licensing for the desktop components including XP, Office, Project and Visio was procured. Server software was also placed under software assurance including Windows 2000, SQL and Exchange servers.

Needs-analysis Summary: In most cases, software licensing must be renewed on an annual basis to ensure legality. In addition, software licensing must be maintained for the PC workstation operating system and application software that agency staff use to perform their assigned duties. Occasionally, additional licensing is required due to increased staff responsibilities and/or new assignments. Server operating system and application software require periodic updates and upgrades to remain current. To help maintain a secure workstation and server environment, continued licensing and updating of anti-viral agents on both workstations and servers is required.

Project Justification: Agency and IR staff have the responsibility to assure that all software used by the agency is properly licensed. Software used by the agency must be upgraded periodically for operational, support, and strategic purposes.

Fiscal Measures: During FY 2002, Microsoft licensing terms changed and consideration was given to Software Assurance in comparison to available Campus Agreement options. It was determined that Software Assurance had the lowest long-term cost of ownership for the agency with the added advantage of perpetual licensing of operating system and application software. On the basis of this evaluation the agency acquired Software Assurance on all maintained Microsoft server and desktop components. The majority of software purchases are procured through DIR state contracts or competitive bids.

Performance Measures: A software inventory is maintained to ensure that the correct numbers of software licenses are available to comply with end user

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3 *Software*

500 Software

license agreements. Annual software license audits are performed to ensure that the agency is in compliance with existing agreements.

The agency monitors performance of application software by tracking the number of support calls reported to the help desk through the agency's automated TRAX system.

Acquisition-of-Alternatives Analysis:

Agency staff performed detailed evaluation to determine the most cost effective method to purchase and license Microsoft software items. Costs associated with our inventory of Microsoft titles was projected over a five-year period with consideration given to the following procurement alternatives: Software Assurance Agreement, Campus Agreement, and a hybrid combined Software Assurance/Campus Agreement. The Software Assurance Agreement was determined to be the most cost effective long-term solution.

Cooperative-Project Area:

N/A

WTDROC Area:

The WTDROC currently does not provided software licensing for agency-owned workstations or servers.

Milestones or Timelines:

This is an ongoing project. Milestones are reached as software is procured and installed or upgraded.

4 *Telecomm Hardware*

350 Hardware

Project Description:

This project supports growth and enhancement of agency local and wide area networks used for providing electronic government services and information to agency staff, other state agencies and institutions of higher education, and the general public. Included in this project are the necessary telecommunications hardware replacements and upgrades for supporting the agency's local area network (LAN), wide area network (WAN), and associated services such as e-mail, Internet, domain name, web, file, database, etc. The agency LAN supports workstations used by each staff member to enhance productivity. The LAN consists of a complex collection of equipment which connects these workstations, working cooperatively to support local communications, switches, servers, routers, gateways, firewalls and wiring. This is a dynamic system, which is continually being improved to maintain compatibility with emerging technology, to enhance employee productivity, and to address security issues.

Project Status:

This is an ongoing agency information technology project. Several significant improvements were realized in FY 2002. A Pix firewall was implemented improving network security for the agency's servers and workstations. Router equipment was upgraded to increase Internet bandwidth. Additional storage for the existing Network Appliance and NT servers was acquired to facilitate increased use of shared drives for workstation applications and to reduce backup time requirements. Future needs will require improved tape backup capabilities and improved security through expansion of firewall features.

Needs-analysis Summary:

The agency requires the ability to collect, maintain, and analyze data as it pertains to higher education. These activities cannot

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4 *Telecomm Hardware*
350 Hardware

proceed in the absence of telecommunications, server, and LAN equipment. Agency staff requires the ability to communicate effectively with institutional and public contacts. Communication with the public and institutions must be supported in an expedient and secure manor. This project permits us to maintain and upgrade our capabilities in a flexible and timely manner.

Project Justification:

This project permits the agency to routinely implement more functional, faster and more reliable telecommunications equipment and servers to provide better service to agency staff and constituents. This project also provides continued support for the agency's telecommuting program by operating Virtual Private Network (VPN) technology for remote connectivity. Having the capability to routinely refresh the telecommunications and server infrastructure also enables the agency to take advantage of new and improved telecommunications and server software components.

The agency relies on its servers and network to collect and deliver timely information to legislature and constituents. Scheduled upgrades of server and network components are a key factor in the effectiveness of the agency's network. Telecommunication infrastructure with inclusion of server and network components must keep stride with continual workstation performance improvements. Initiatives to provide information to constituents and the public must be supported with the hardware and infrastructure to support the required communication. Continual vigilance of network security must be observed to protect the confidentiality, integrity and availability of the records and resources that the agency maintains. These efforts would be unsupported without the availability of funding provided by this project.

Fiscal Measures:

This agency would not be able to effectively conduct business, and in some cases not be able to conduct business at all, without a responsive, reliable, and secure telecommunications network infrastructure. One metric used to evaluate the cost versus benefit of this project is the potential loss of staff productivity due to network outages. Agency staff time lost due to a network infrastructure outage is estimated to be approximately \$6,500 per hour. The planned and scheduled upgrading of the telecommunications infrastructure helps mitigate the risk of staff productivity loss due to network infrastructure outages.

Examples of cost savings facilitated by the agency's telecommunications network include online submission of reports and electronic retrieval of report edits by public higher education institutions versus the costs of mailing computer tapes and printed reports; staff telecommuting cost savings; and travel cost savings related to videoconferencing and video broadcasting. These are just a few examples.

Performance Measures:

The primary objective of this project is to deliver and maintain a reliable and secure network that effectively supports staff and constituents and provides for the acceptable delivery of mandated services. Uptime statistics are maintained for all production servers and networking equipment. The established 98% uptime goal for server and network equipment is consistently exceeded. Bandwidth monitoring is continually monitored on the agency's LAN and Internet connections with automated tools. Periodic reviews are performed to assure that adequate bandwidth is available.

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4 *Telecomm Hardware*
350 Hardware

An implementation review is performed for all individual telecommunication hardware projects. This review takes into account estimated cost versus actual purchase cost. Unexpected benefits derived from the individual telecommunications projects are also documented during the review process. The review also documents any unexpected operating expenses incurred for the project.

Acquisition-of-Alternatives Analysis:

Currently, purchasing is the most cost-effective method for procuring the required telecommunications infrastructure for supporting agency telecommunications operations. Lease arrangements are considered in the purchase phase of individual telecom projects. With the long service-cycle of these items and their infrastructure nature, lease terms have not proven to be cost effective nor operationally favorable to date.

Telecommunications components are selected on technical merit and interoperability with existing software. Standardization and observed high reliability are also factors used in determining acquisition alternatives. DIR state contracts or competitive bids using QISV certified vendors are used for all information technology-related procurements.

Cooperative-Project Area:

Connectivity with other entities and institutions of higher education has been accomplished in the past with the cooperation of the University of Texas through THENet services. However, the THENet services will be phased out during FY 2003 with connectivity being provided by SBC through a DIR Telecommunications Services Division state contract.

WTDROC Area:

Utilizing the WTDROC for the required local telecommunications hardware provided through this project is not an option, as the WTDROC currently does not have the capability to provide the required telecommunications infrastructure. The Legislative Budget Board has granted the agency a waiver from use of the WTDROC for this project.

Milestones or Timelines:

This is an ongoing information technology project. Milestones are reached as telecommunications hardware is procured and hardware is upgraded or replaced.

5 *Information Access Initiative*
150 Data Warehousing

Project Description:

The IAI project will provide stakeholders in Texas higher education access to THECB's stores of higher education information for purposes of research, planning and decision-making. IAI will implement an internal agency data warehouse, integrating certified THECB higher education data plus pertinent external data sources into centralized databases. It will also supply student and faculty data to populate the Texas Education Agency (TEA) P-16 Public Education Integrated Data Resource. These warehouses will support multidimensional and drill-down queries and report capabilities, and will have user-friendly access interfaces.

Currently, predefined summaries of data are available via institutional and statewide profiles. Access to much of the source data is not integrated and is available only through ad hoc processes that often involve complex cross-system matching programs. With

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5 *Information Access Initiative*

150 Data Warehousing

IAI, stakeholders will have ready access to data to be used for comparative and longitudinal analysis.

Platform - Agency-provided servers and network, SQL Server 2000, data modeling, analysis and OLAP tools. P-16 PEIDR (TEA) is being housed on WTDROC equipment at their site.

Staffing - 4 agency FTE. Contractor(s) have been and will be retained to provide guidance for system design, technical assistance. Training--database and development software.

Milestones - assignment of staff, acquisition of software.

Deliverables - phased implementations of the data warehouse, with higher priority data sets implemented first.

Staff continue to learn the new data warehouse structures. Project deliverables are dependent on the continued operation of production systems that house the source data. Timelines are included in the Milestones or Timelines section below.

Project Status:

This project began on 09-01-2001. As of 07-26-2002, the project manager, database administrator, and developer/analyst are the same staff as began with the project, plus a data analyst has been hired. Classroom and computer-based training has been provided and is planned. The data model, source-to-target documentation, and extracts are complete for the longitudinal student-related data phase and nearing completion for the ancillary data phase. External data sets required for support of a THECB initiative have been requested and will be included in IAI earlier than originally planned. The interdivisional research/stakeholder committee is headed by the Assistant Commissioner for Planning and Information Resources and includes the IAI project manager. Currently, the committee is furnishing input/advice for the IAI ancillary data phase. A contract is in progress, scheduled for completion prior to 09-01-2002, for SQL Server 2000 installation and testing, and database and data warehouse consultation to complete the loading of the longitudinal student-related data.

The P-16 Public Education Integrated Data Resource at TEA is an expansion of the TEA Public Access Initiative that began three years ago. THECB and SBEC joined the project 09-01-2001. The THECB IRM serves on the P-16 Interagency Steering Committee, and the IAI project manager is a member of the P-16 Technical Advisory Group. The IAI project manager continues to furnish THECB data expertise for the remaining data modeling activities. All data extracts except one application area are complete and have been provided to TEA.

This project is migrating into Daily Operations as of 09-01-2003 for ongoing support of data analysis and query/report functions and for continuing to supply data to the TEA P-16 Public Education Integrated Data Resource initiative. There are budget requests

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5 *Information Access Initiative*

150 Data Warehousing

Needs-analysis Summary:

included in the LAR to support this project in Daily Operations for FY 2004 & FY 2005.

While each higher education institution has its own data about students, staff, courses, attendance and finances, most have no way to access longitudinal and comparative data about other institutions or the state as a whole, information that can be used to determine factors that contribute to student performance and, thus, can support education planning and decision making. Other stakeholders have even less information.

In numerous interviews and surveys conducted by THECB, educators and other higher education stakeholders have reported that stakeholders want and need comparative, longitudinal, high-quality information about students, institutions, and institutional performance that is easy to get and to use. There has been consistent desire among state policy makers to see better data about the relationship between student attributes and achievement in public schools with later success outcomes in higher education; in essence, state policy makers wish to have integrated data about all public education, P-16, in Texas.

Project Justification:

The Information Access Initiative project will provide the agency and its clients the capability to more quickly and efficiently access information from agency databases, without labor-intensive, time-consuming and costly searches through written materials or ad hoc data matching and merging programs. It will provide access to consistent results through uniform data definitions, and it will incorporate longer time spans of data than are currently presented online to support trend analysis.

Access to a broad range of data elements over longer time spans will support agency personnel who must analyze higher education trends, participation rates and identifiable student successes.

The higher education institutions in Texas collect and maintain their own operational data, but they rely on the THECB as the source for comparative data from other institutions and for statewide aggregate data. Increasingly, the THECB has been called upon by institutions to transform the raw data it collects and to provide policy research information. In spring 2001, THECB contracted with the State Auditor's Office Management Advisory Services to conduct a survey of stakeholders to determine higher education data needs. Performance data (student, institution, high school) was the most frequently mentioned desired data, and analysis of outcomes was the most frequently mentioned type of analysis. 82% of responses indicated that respondents wanted to access the data via some electronic means – view online, access via OLAP, download formatted data, etc.

State statutes (77th Legislature, General Appropriations Act) that address the implementation of the IAI and the P-16 Public Education Data Warehouse include: THECB – article III, Rider 36; SBEC – Article III, Rider 6; and TEA – Rider 1.a. Capital Budget - #8, Public Access Initiative.

Real benefits are associated with the ability of stakeholders to obtain policy data in a timely fashion. For example, better policy decisions can be made by legislators during an active session if questions can be answered as they arise. Clearly, joining

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5 *Information Access Initiative*

150 Data Warehousing

databases from scratch and then conducting analyses for ad hoc requests impact timeliness of response by THECB; that also does not address the problems faced when all of the data elements are not readily available. A major area where this has been a concern relates to integration of data between the Texas Education Agency and THECB, as increasing emphasis is placed on analyses to reflect observations for a seamless P-16 education system. While some ad hoc information requests can be satisfied in less than one day, more substantial policy questions have taken weeks to answer. The IAI will greatly enhance data quality/availability, data access, and timelines of access to data. More importantly, data customers will directly satisfy many information needs themselves, thus enhancing quality of service significantly.

Fiscal Measures:

Increased service levels through enhanced access to data/analyses in a more timely fashion are not only desirable but implicitly required by legislative mandate. Current data/analysis delivery vehicles are marginally adequate, but taxed to capacity and are negatively impacting internal support service levels. Objective indicators show that a vehicle of this sort will greatly improve direct service delivery (see details regarding SAO MAS survey in performance measures).

Major factors considered were: volume of information/analysis service requests; variable nature of information service requests (from simple data requests to major state level policy analyses); diversity of customer audience making service requests.

Track and compare project benefits. Projection is that the number of requests for programming support will decrease and the number of direct online access actions by customers will increase. In 1995, a transaction processing system (PREP) was implemented that allowed customers to obtain the most commonly requested types of data in the most common forms requested via online view. Although PREP presented only basic summaries of data and did not allow any form of analysis, there was a decrease in programming support requests for data/analyses subsequent to its deployment.

Performance Measures:

Requests for data services are received electronically and compiled weekly and entered into a tracking database. Component elements include requestor, substance of request, beginning-ending time for provision of service.

THECB will track both ongoing requests for programming support, as well as the number of online "hits" used to access the IAI data warehouse.

Performance measures identified and approved by agency executive management are: number of studies on higher education conducted; number of requests for computerized information responded to by the Educational Data Center in less than one day. The highest priority requirements for internal and external stakeholders according to the SAO MAS survey were to be able to obtain student, institution, and high school performance data, to analyze outcomes, and to access the data via electronic means (view online, access via OLAP, download formatted data).

Measures of web-based accesses for various static reports are being logged. Formal information access requests will continue to

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5 *Information Access Initiative*

150 Data Warehousing

Acquisition-of-Alternatives Analysis:

be monitored and tracked.

THECB assessed three general alternatives for implementing the agency IAI data warehouse: wholly outsource the effort, including development and ongoing maintenance; a staff-supplementing strategy, whereby an external consultant is used for project/system design with THECB staff in critical leadership roles; and in-house resources supplemented with contract staff as needed to ensure sufficient resources and technical expertise to complete the effort.

Texas A&M University System pursued external contractors to build a data warehouse. Responses received to their RFP ranged from \$1.2 to \$15.2 million. The winning bid was \$2.5 million. The TEA initiated a project in FY 2001 to build a data warehouse and four data marts with budgeted funds of \$10 million for an outsourced project. While initially the THECB has neither the in-house expertise nor staff resources available to plan and develop the data warehouse without assistance, it also does not wish to remain technically dependent on an external entity once the warehouse is in existence. The THECB does have individuals who are extremely knowledgeable regarding the higher education data, historical ad hoc requests, and data base design principles. Both to contain costs and to assure technical self-sufficiency, the decision was made to pursue a hybrid approach.

Baylor University developed a data warehouse with in-house staff using SAS software. Acquisition of the SAS data warehouse software at approximately \$436,000 would have left minimal resources for staff personnel or consulting technical assistance to accomplish implementation. Therefore, THECB opted to use standard Microsoft SQL Server 2000 software, augmented with data modeling, reporting, and OLAP software.

Cooperative-Project Area:

The IAI will cooperatively support the P-16 Public Education Integrated Data Resource housed at the TEA, providing higher ed student and faculty data to be integrated with PEIMS and State Board for Educator Certification data. State institutions of higher education will have faster access to a broader base of information for policy/management purposes, especially peer analyses and statewide data. The State Data Center uses THECB data to prepare statewide demographic analyses.

WTDROC Area:

This project is using agency supplied hardware and software. Capital funding for this project was significantly reduced during the appropriations process due to the fact that THECB is participating in the interagency data warehouse project with TEA and SBEC. The PK-16 Public Education Integrated Data Resource project will provide hardware and software for hosting the interagency data warehouse. This data warehouse is being hosted on WTDROC supplied resources located at TEA.

Northrop Grumman has been contacted concerning this project. A scoping document was submitted on May 13, 2002, requesting a proposal for providing operations center and disaster recovery services as related this project. To date, no response has been received from Northrop Grumman.

Milestones or Timelines:

Milestones	Start Date	End Date	% Complete
IAI Project Startup, staff assignment, work plan,			

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150 Data Warehousing

initial stakeholder meeting,
initial training 09-04-01 11-15-01 100%
Pilot project, OLAP tool evaluation 09-24-01 11-08-01 100%
Longitudinal student-related data phase
 Design/mapping/ETL 10-01-01 08-30-02 95%
 Development/validation/turnover 03-01-02 12-31-02 40%
Ancillary student-related, faculty data phase
 Design/mapping/ETL 03-01-02 12-31-02 65%
 Development/validation/turnover 08-01-02 03-31-03
THECB data beyond P-16 PEIDR req.
 Design/mapping/ETL 05-01-02 04-30-03 20%
 Development/validation/turnover 08-01-02 06-30-03
External data sources 06-03-02 08-29-03 10%
Development
 Existing mainframe apps 12-04-01 08-29-03
 New Development 08-01-02 08-29-03
 Ad hoc requests 09-04-01 08-29-03 45%

FY 2002 & 2003 planned project phases end as of 08-31-2003, and the project will be migrating into Daily Operations as of 09-01-2003.

6 *Student Loan Server Migration*

350 Hardware

Project Description:

Project Status:

Needs-analysis Summary:

Project Justification:

Fiscal Measures:

Performance Measures:

Acquisition-of-Alternatives Analysis:

Cooperative-Project Area:

WTDROC Area:

Milestones or Timelines:

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7 *Client/Server Disaster Recovery*

350 Hardware

Project Description:

Project Status:

Needs-analysis Summary:

Project Justification:

Fiscal Measures:

Performance Measures:

Acquisition-of-Alternatives Analysis:

Cooperative-Project Area:

WTDROC Area:

Milestones or Timelines:

8 *Disaster Recovery Power Cont.*

350 Hardware

Project Description:

Project Status:

Needs-analysis Summary:

Project Justification:

Fiscal Measures:

Performance Measures:

Acquisition-of-Alternatives Analysis:

Cooperative-Project Area:

WTDROC Area:

Milestones or Timelines:

6000 Daily Operations

1 *Daily Operations*

100 Daily Operations

Project Description:

Daily Operations Overview - The goal of the agency's Information Resources infrastructure is to promote and support a robust array of technologically based solutions which enable informed planning, foster creative leadership, and sustain the efficient and effective management of the state's higher education resources.

The agency's information resources daily operations infrastructure includes the following support functions:

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6000 Daily Operations

1 Daily Operations

100 Daily Operations

- Operations - Network Operations, PC/Network Support, Network and Systems Security, Computer Operations, Data Entry and Data Control
- Systems Development - systems development and systems software support
- Educational Data Center - CBM Report collection, processing, and certification
- Educational Data Analysis Support Center – higher education data analysis and reporting support, Information Access Initiative (IAI) project implementation, and support for the interagency PK-16 Public Education Integrated Data Resource project housed at TEA
- Web Services - Supports the agency websites and web application development

There are currently 52 FTEs in Information Resources services area.

Data Center - The agency's data center is comprised of a Bull DPS 9000 mainframe computing system; a XEROX page printing system; various file, database, e-mail, web, domain, etc. servers; and the LAN and WAN infrastructure.

Contract Services -

- Offsite storage of data center media
- Short term hardware and software installation support services as required
- Onsite technology training as required

Project Status:

Information resources operational support is provided on an ongoing basis throughout the biennium. Costs, scope, and schedules are routinely revised as needed. As reflected in this BOP, a significant change will occur at the end of FY 2003 with the completion of the Information Access Initiative project and its integration into daily operations.

Needs-analysis Summary:

N/A

Project Justification:

Information Resources daily operations is required to support the agency's information technology infrastructure and its mission-critical systems, which include the Higher Education Management Information Systems and the Student Loan and Grant System. This infrastructure directly supports the Coordinating Board and its staff in carrying out the Board's mission, and also the state higher education plan, Closing the Gaps. The central purpose of the THECB is "...to provide leadership and coordination for the Texas higher education system, institutions and governing boards, to the end that the State of Texas may achieve excellence of its youth..." [TEC, § 61.002(a)]. Central to the provision of leadership and coordination is the acquisition and dissemination of information regarding performance of students and institutions, and analyses of data to determine best practices and efficient use of resources. TEC § 61.051(k) states "The Board shall establish and maintain a management information system that includes the presentation of uniform statistical information that is appropriate to planning, financing, and decision-making rather than regulation." Further, TEC § 61.076(a) establishes as policy that "...the entire system of education supported with public funds be coordinated to provide the citizens with efficient, effective, and high quality educational services and activities."

Agency code: 781 Agency name: **Higher Education Coordinating Board**

CATEGORY CODE/CATEGORY NAME

Project Number/Name

Type of Project

DESCRIPTION

6000 Daily Operations

1 Daily Operations

100 Daily Operations

Fiscal Measures:

Proposed expenditures related to daily operations are reviewed by the Information Resources Manager and other IR staff as required to determine the most cost-effective and efficient approach to achieve the mission of Information Resources and the agency. Budgeted and expended/encumbered amounts associated with daily operations are reviewed and monitored on a monthly basis.

Performance Measures:

Performance measures for the Student Loan and Grant System were implemented during FY 2002 with the publication of the Student Loan System Availability, Integrity, Maintainability, and Security (AIMS) Standards and Objectives document. Enhanced performance measures are currently in development for all IR Strategic Plan objectives associated with daily operations.

Acquisition-of-Alternatives Analysis:

As related to systems development projects, the Information Resources Project Quality Assurance Plan dictates performance measurements to be used during each project phase for all systems development projects.

The WTDROC does not have the capability to provide the Bull mainframe services required to support the agency's mission-critical systems (see WTDROC section below). The Bull mainframe environment has a number of limitations, and the applications running on the system, which are over 25 years old, need to be updated. The agency has investigated the alternatives (outsourcing, build, or buy) for migration of legacy applications from the current mainframe environment. A Request for Information was issued by the agency February 2002 seeking solutions and an estimated project cost. After analyzing the proposed solutions and costs, the decision was made to migrate to a client/server environment. A waiver from the public solicitation requirements of TAC, Section 2054.119 was received from DIR on July 18, 2002. It is the agency's intent to enter into an interagency contract with the Applied Research Laboratories: University of Texas at Austin for professional services required for the migration. At the July 19, 2002 meeting of the Coordinating Board, approval was given for a budget amendment for FY 2003 adding \$1,940,668 to the budget of the Hinson-Hazlewood Loan program for the purpose of performing the migration. A request has been submitted to the LBB for approval to exceed the current limitation on capital budget expenditures for FY 2003. Capital funding in the amount of \$1,507,103 for FY 2004 and \$1,169,637 for FY 2005 was also approved at the Coordinating Board meeting for this project. The LAR for Fiscal Years 2004 and 2005 includes these amounts as an exceptional item. All funding for this project would come from loan program revenues specifically allocated for this use. In general, the agency relies heavily on state contracts and competitive procurement in the open market place for the procurement of information resources related items and services. Proposals are also solicited from the WTDROC where applicable and/or required.

Cooperative-Project Area:

Disaster Recovery - The agency has a cooperative agreement with the Defense Information Systems Agency, an agency of the U.S. Department of Defense, to provide a reciprocal disaster recovery site for each entity in the event of a disaster that would render either party's data center inoperable.

Interagency Projects - THECB, TEA, and SBEC P-16 Student/Staff Public Education Integrated Data Resource project. The THECB Information Access Initiative (IAI) project supports this project.

BIENNIAL OPERATING PLAN PROJECT DETAIL

78th Regular Session, Conference Committee
Automated Budget and Evaluation System of Texas (ABEST)

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Agency code: 781 Agency name: **Higher Education Coordinating Board**

CATEGORY CODE/CATEGORY NAME

Project Number/Name

Type of Project	DESCRIPTION
6000 Daily Operations	
1 <i>Daily Operations</i>	
100 Daily Operations	
WTDROC Area:	The agency has on file a waiver from Legislative Budget Board for the use of the WTDROC as the agency’s operations center and disaster recovery center. The WTDROC has continually indicated that they are not able to support the Bull mainframe environment, primarily due to the fact that it is not cost effective for them to provide Bull mainframe services required by only one state agency.
Milestones or Timelines:	Milestones and timelines associated with daily operations vary and are dependent upon specific schedules and requirements for the individual projects listed in this BOP, individual system processing and reporting requirements, and LBB performance measures related to the information resources area.

BIENNIAL OPERATING PLAN PROJECT SCHEDULE WITH OOE DETAIL
 78th Regular Session, Conference Committee
 Capital Information Only
 Automated Budget and Evaluation System of Texas (ABEST)

DATE: **8/1/2003**
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Agency code: **781** Agency name: **Higher Education Coordinating Board**

Category Code / Category Name

Project Sequence/Project Id / Name

OOE BY STRAT/ TOF / MOF CODE

Est 2002

Bud 2003

Rec 2004

Rec 2005

5005 Acquisition Information Resource Technology

2/1 PC Hardware Replacement Program and Upgrades

OBJECTS OF EXPENSE

8-1-2 INFORMATION RESOURCES

5000 CAPITAL EXPENDITURES

\$182,690

\$182,690

\$159,854

\$159,854

Total OOE, Strategy 8-1-2

\$182,690

\$182,690

\$159,854

\$159,854

Total OOE, Project 2

\$182,690

\$182,690

\$159,854

\$159,854

TYPE OF FINANCING

CA 1 GENERAL REVENUE FUND

\$182,690

\$182,690

\$159,854

\$159,854

Total TOF, Project 2

\$182,690

\$182,690

\$159,854

\$159,854

3/3 PC Software Licensing Acquisitions and Upgrades

OBJECTS OF EXPENSE

8-1-2 INFORMATION RESOURCES

5000 CAPITAL EXPENDITURES

\$50,000

\$50,000

\$43,750

\$43,750

Total OOE, Strategy 8-1-2

\$50,000

\$50,000

\$43,750

\$43,750

Total OOE, Project 3

\$50,000

\$50,000

\$43,750

\$43,750

TYPE OF FINANCING

CA 1 GENERAL REVENUE FUND

\$50,000

\$50,000

\$43,750

\$43,750

Total TOF, Project 3

\$50,000

\$50,000

\$43,750

\$43,750

4/2 Telecommunications Hardware Acquisitions and Upgrades

OBJECTS OF EXPENSE

8-1-2 INFORMATION RESOURCES

5000 CAPITAL EXPENDITURES

\$90,000

\$90,000

\$78,750

\$78,750

Total OOE, Strategy 8-1-2

\$90,000

\$90,000

\$78,750

\$78,750

Total OOE, Project 4

\$90,000

\$90,000

\$78,750

\$78,750

TYPE OF FINANCING

CA 1 GENERAL REVENUE FUND

\$90,000

\$90,000

\$78,750

\$78,750

Total TOF, Project 4

\$90,000

\$90,000

\$78,750

\$78,750

5/4 Information Access Initiative

BIENNIAL OPERATING PLAN PROJECT SCHEDULE WITH OOE DETAIL
78th Regular Session, Conference Committee
Capital Information Only
Automated Budget and Evaluation System of Texas (ABEST)

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Agency code: **781** Agency name: **Higher Education Coordinating Board**

Category Code / Category Name

Project Sequence/Project Id / Name

OOE BY STRAT/ TOF / MOF CODE		Est 2002	Bud 2003	Rec 2004	Rec 2005
<u>OBJECTS OF EXPENSE</u>					
1-3-1	CLOSE GAPS - PLANNING/INFORMATION				
1001	SALARIES AND WAGES	\$196,824	\$209,412	\$0	\$0
1002	OTHER PERSONNEL COSTS	\$0	\$4,080	\$0	\$0
2000	OPERATING COSTS	\$70,826	\$359,350	\$0	\$0
5000	CAPITAL EXPENDITURES	\$10,000	\$75,000	\$65,625	\$65,625
Total OOE, Strategy	1-3-1	\$277,650	\$647,842	\$65,625	\$65,625
Total OOE, Project	5	\$277,650	\$647,842	\$65,625	\$65,625
<u>TYPE OF FINANCING</u>					
CA 8345	TELECOMMUNICATIONS INFRA FUND	\$10,000	\$75,000	\$65,625	\$65,625
Total TOF, Project	5	\$10,000	\$75,000	\$65,625	\$65,625
6/5	Student Loan Server Migration				
<u>OBJECTS OF EXPENSE</u>					
8-1-2	INFORMATION RESOURCES				
5000	CAPITAL EXPENDITURES	\$0	\$0	\$1,480,487	\$1,533,557
Total OOE, Strategy	8-1-2	\$0	\$0	\$1,480,487	\$1,533,557
Total OOE, Project	6	\$0	\$0	\$1,480,487	\$1,533,557
<u>TYPE OF FINANCING</u>					
CA 997	OTHER FUNDS	\$0	\$0	\$1,480,487	\$1,533,557
Total TOF, Project	6	\$0	\$0	\$1,480,487	\$1,533,557
Total Category	5005	\$332,690	\$397,690	\$1,828,466	\$1,881,536

6000 Daily Operations

1/0 Information Resources Daily Operations

OBJECTS OF EXPENSE

1-3-1	CLOSE GAPS - PLANNING/INFORMATION				
1001	SALARIES AND WAGES	\$303,563	\$316,176	\$0	\$0
1002	OTHER PERSONNEL COSTS	\$8,900	\$8,900	\$0	\$0
2000	OPERATING COSTS	\$163,400	\$161,200	\$0	\$0

BIENNIAL OPERATING PLAN PROJECT SCHEDULE WITH OOE DETAIL
 78th Regular Session, Conference Committee
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Agency code: **781** Agency name: **Higher Education Coordinating Board**

Category Code / Category Name

Project Sequence/Project Id / Name

OOE BY STRAT/ TOF / MOF CODE

Est 2002

Bud 2003

Rec 2004

Rec 2005

Total OOE, Strategy	1-3-1	\$475,863	\$486,276	\$0	\$0
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8-1-2	INFORMATION RESOURCES				
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1001	SALARIES AND WAGES	\$1,771,957	\$1,833,948	\$0	\$0
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1002	OTHER PERSONNEL COSTS	\$47,440	\$40,480	\$0	\$0
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2000	OPERATING COSTS	\$640,800	\$617,021	\$0	\$0
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5000	CAPITAL EXPENDITURES	\$0	\$1,940,668	\$0	\$0
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Total OOE, Strategy	8-1-2	\$2,460,197	\$4,432,117	\$0	\$0
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Total OOE, Project	1	\$2,936,060	\$4,918,393	\$0	\$0
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TYPE OF FINANCING

CA 997	OTHER FUNDS	\$0	\$1,940,668	\$0	\$0
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Total TOF, Project	1	\$0	\$1,940,668	\$0	\$0
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Total Category	6000	\$0	\$1,940,668	\$0	\$0
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AGENCY TOTAL		\$332,690	\$2,338,358	\$1,828,466	\$1,881,536
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METHOD OF FINANCING

1	GENERAL REVENUE FUND	\$322,690	\$322,690	\$282,354	\$282,354
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997	OTHER FUNDS	\$0	\$1,940,668	\$1,480,487	\$1,533,557
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8345	TELECOMMUNICATIONS INFRA FUND	\$10,000	\$75,000	\$65,625	\$65,625
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Total, Method of Financing		\$332,690	\$2,338,358	\$1,828,466	\$1,881,536
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TYPE OF FINANCING

CA	CURRENT APPROPRIATIONS	\$332,690	2,338,358	1,828,466	1,881,536
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Total, Type of Financing		\$332,690	\$2,338,358	1,828,466	1,881,536
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